

Promoting University Faculty and Staff Awareness of Students with Learning Disabilities: An Overview of the Productive Learning u Strategies (PLuS) Project

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Abstract

This article presents a model demonstration project that was designed to promote disability awareness, understanding, and responsiveness among University faculty and staff at a large private University. One of the unique features of the Productive Learning u Strategies (PLuS) project is that the effort targeted all faculty and staff through a cascade training model approach. This approach was designed to leverage project resources in ways that allowed the project to reach a broader number of individuals. The effort was supported by a web site, bi-monthly print materials, and informational videos that were developed by the project and widely distributed. This article provides an overview of the model, a description of the specific model features, and an overview of findings from several investigations that were conducted during the course of project implementation.

The importance of postsecondary school in an increasingly knowledge-based economy is indisputable and finding ways to support access to higher education among students with disabilities is of growing national concern. Recent estimates from the National Longitudinal Transition Study-2 suggest that approximately 10% of youth with learning disabilities (LD) have enrolled in a four-year colleges or universities at some point during the first two years after leaving high school (Wagner, Newman, Cameto, Garza, & Levine, 2005) and these students represent one of the fastest growing populations of students on college campuses (Mull, Sitlington, & Alper, 2001). As students with LD gain access to postsecondary settings, it will be important for colleges and universities to find innovative ways of supporting these youth, many of whom may come to college campuses without the requisite skills to successfully negotiate these systems (Gregg, 2007; Murray, Goldstein, Nourse, & Edgar, 2000). Unlike K-12 public schools, colleges and universities are not required to develop individualized educational plans (IEPs) for students with disabilities, and students must self-disclose within these environments to receive any services at all. As Madaus and Shaw (2004) note "Section 504 and the ADA.....are not prescriptive special education laws, like IDEA [Individuals with Disabilities Education Act], and result in varying services across institutions of higher education" (p. 85).

Despite differences in mandated services and supports for youth in public K-12 schools and universities, there are a growing number of promising strategies that may help to make postsecondary settings more supportive of students with LD (Allsopp, Minskoff, & Bolt, 2005; Cook et al., 2006; Debrand & Salzberg, 2004; Rohland et al., 2003; Shaw & Scott, 2003; Sowers & Smith, 2004). These efforts are guided in part by prior research on University faculty attitudes which indicates that although faculty are generally willing to provide students with minor accommodations (e.g., recorded lectures or additional time during exams), they sometimes have lower academic expectations for students with LD than for students without disabilities (Houck, Asselin, Troutman, & Arrington, 1992). Furthermore, findings from studies of University students' perceptions indicate that students with disabilities often perceive that faculty, staff, and administrators lack information

regarding disability issues, have “poor” attitudes towards students with disabilities, and are not receptive to accommodation requests (Dowrick, Anderson, Heyer, & Acosta, 2005; Farone, Hall, & Costello, 1998).

In an effort to address the need for faculty development pertaining to students with disabilities, the U.S. Department of Education, Office of Postsecondary Education (OPE) initiated a grant program in 1999 that provides funding to colleges and universities to promote disability awareness. To date, 71 of these Demonstration Projects to Ensure Quality Higher Education for Students with Disabilities have been awarded. In reviewing the abstracts for the 71 funded projects between 1999 and 2005, it is clear that vast majority of the proposals were designed as faculty development initiatives (U.S. Department of Education, 2008). However, despite the relatively large number of projects funded, very few published descriptions of these projects exist in the professional literature. For example, we conducted an ERIC search using the name of the Project Director(s) of these 71 projects as the search term (i.e., author) and we reviewed the table of contents of all issues of the *Journal of Postsecondary Education and Disability* and the *Journal of Vocational Special Needs Education* to search for descriptions of OPE funded projects. This search yielded only four published descriptions of projects implemented through this funding (Cook et al., 2006; Krampe & Berdine, 2003; Rohland et al., 2003; Sowers & Smith, 2004).

Cook et al. (2006) implemented a project that provided University faculty with training through three interrelated training components. The first component was a Classroom Accommodation Network comprised of a web site, a telephone hotline, and in-person support. This component provided participants with an ongoing resource for having questions answered and learning more about strategies and supports. The second component provided direct training to approximately 20 faculty members per year through a five-day summer institute. The summer institute was designed to increase faculty awareness of specific disabilities, University-based support services, as well as specific strategies for supporting students with disabilities in University contexts. The third training component was a partnership program that paired each of the summer institute training participants with a student with a disability within the institution. These partnerships were arranged *prior* to participation in the summer institute in an effort to provide faculty with a context for developing further understanding about the specific needs of students with disabilities in University settings. Workshop evaluations and qualitative interviews with faculty suggested that this project had positive effects on faculty members’ self-perceived ability to interact effectively with students with disabilities and with other professionals regarding the needs of students with disabilities.

In a second example, Sowers and Smith (2004) trained nursing faculty using a brief two-hour training curriculum that contained four main components designed to (a) enhance the perceptions of faculty regarding the capabilities of nursing students with disabilities, (b) provide strategies for accommodating students with disabilities during instruction and supervision, (c) provide information pertaining to laws (Section 504 & ADA), and (d) provide faculty with information regarding the costs associated with providing accommodations. In an evaluation of changes in nursing faculty perceptions prior to and following training, these researchers found that the training led to improvements in faculty members’ perceptions of the capabilities of students with disabilities, and decreases in perceived concerns about having students with disabilities in nursing programs.

In addition to training programs directed towards changing specific faculty attitudes and practices, a growing body of research suggests that organizational characteristics may have a significant impact on the performance of students with LD (Boxall, Carson, & Docherty, 2004; Roer-Strier, 2002; Rohland et al., 2003). According to this perspective, efforts to promote positive experiences among students should be broadly focused and designed to change overall climates of institutions. In our search for published OPE funded projects we found two efforts that were designed to address broader institutional change (Krampe & Berdine, 2003; Rohland et al., 2003). For example, Rohland et al. (2003) implemented a project called Changing the Culture (CTC) that included 103 faculty from 45 departments at 7 different colleges and universities in Rhode Island. Faculty were recruited to participate in a four-day training that was designed to promote disability awareness, an understanding of legal issues, and an understanding of supports for students with hearing, vision, learning, attention, and emotional disabilities. The training participants also discussed and developed strategies for serving as “disability mentors” in their home academic units. Thus, the goal of this project was to develop institutional resources and supports by training individuals who would then serve as mentors for other faculty. Findings from an analysis of trainee perceptions prior to and following the CTC training activities indicated that trainees had greater confidence in meeting

training objectives, and were satisfied with the training materials at the end of the training sessions. However, follow-up data regarding the level of trainee implementation of training goals during the year following training was not provided.

Due to advocacy, an increased understanding of the needs of students with LD in postsecondary settings, the legal requirements of the ADA and Section 504, and federal funding initiatives such as the model demonstration projects funded through OPE, faculty development programs such as the projects described above are becoming increasingly common (Madaus & Shaw, 2006). Published descriptions of these projects are less common although information regarding the specific features of such efforts is potentially a rich resource for those interested in initiating disability-focused training in postsecondary settings. Therefore, the purpose of the present article was to add to the literature on disability-focused professional development initiatives by providing an overview of an organizational change model that was implemented at DePaul University. This OPE funded project was a broad-based training effort that included a cascade training model, the provision of web-based resources, and the wide distribution of print and video materials.

Project PLoS Model and Methods

From the outset of this project, we adopted the view that it was important for us to leverage our project resources in ways that allowed us to promote organizational change across the entire University. Therefore, we targeted both University faculty and University staff as participants in this initiative. Although prior projects of this nature consistently target faculty, we know of no projects that have designed and implemented training that is tailored specifically for University staff. This is unfortunate because many University staff work in positions that require them to interact with students with disabilities on a regular basis and they contribute to the overall climate and cultures of postsecondary settings in important ways.

To facilitate culture change within the parameters of our budget, we adopted an empowerment model for the diffusion of awareness among faculty and staff throughout the University. We chose to implement a train-the-trainer model that was designed to cascade broad organizational support of students with LD downward through the University. According to our approach, faculty and staff from throughout the University would be selected to participate in training and these individuals would then become trainers who would implement training with other members of their respective departments and units. Therefore, this effort was *not* designed to train individuals to provide direct service to students with LD, but instead was designed to encourage training participants to propagate awareness and create changes to University processes that would improve the overall setting for students with LD. Similar training models have been successfully utilized in a wide variety of domains and organizational settings (Bax, 2002; Hayes, 2000; Jacobs, 2002).

Context and Participants

Project PLoS was implemented at DePaul University, a large, urban private University in the Midwestern United States. According to U.S. News and World Report's annual ranking of America's Best Colleges, during the past 10 years the University has consistently been ranked as a Tier 3 institution among national universities and it is considered "more selective" on selectivity ratings. The University's stated mission is focused on teaching and service with a commitment to connections with the community. At the time of this study, over 23,000 undergraduate and graduate students attended the University with approximately 15,000 undergraduates and over 8,000 graduate students. Of that population, approximately 250 students (1%) were receiving disability support services for learning disabilities. This percentage of students with LD is consistent with the number of students receiving services for LD in colleges and universities nationally (Horn & Nevill, 2006).

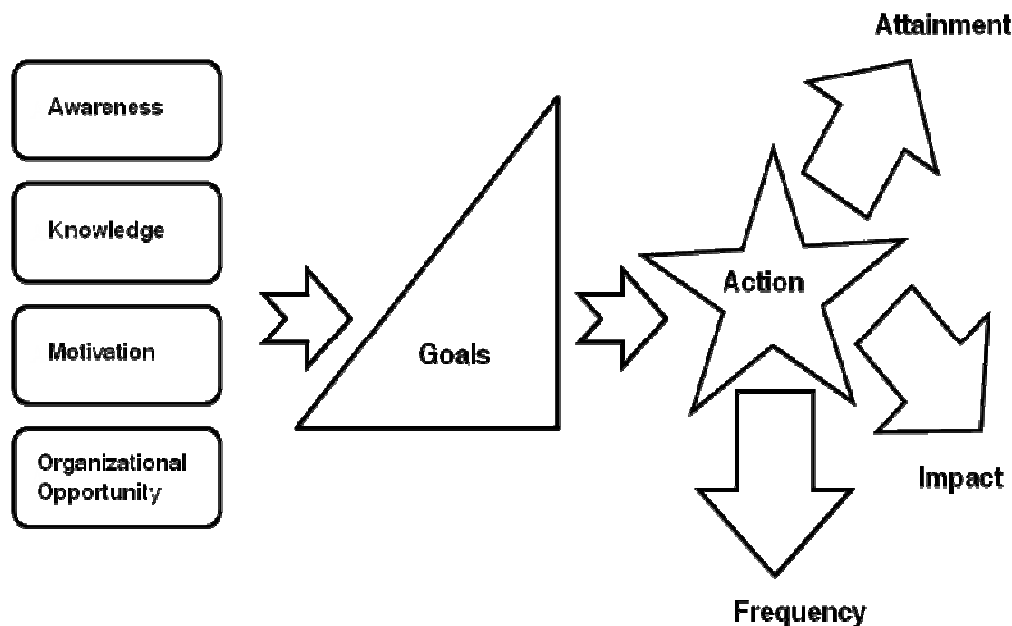
Because we were interested in impacting the overall culture of the University, we selected faculty from every department to participate as trainers and we also selected staff members from units that we believed would have regular interaction with students with disabilities (e.g., library, student services, financial aid, etc.). Training participants were recruited by sending letters describing the summer training opportunity to department heads (faculty) and unit heads (staff). In these recruitment letters we described the project, the training dates, and offered a training stipend (\$1,000) to interested participants. Department and unit administrators then sent recruitment letters (via e-mail) to faculty and staff within their units and participants were selected using two criteria. First, we screened participants to ensure that different departments and units

were represented in the training. Second, faculty and staff were admitted on a first-come-first-serve basis. During Year 1 of the project, 26 faculty and 24 staff trainers participated and during Year 2 an additional 26 faculty and 24 staff members participated. Thus, over the course of the project, a total of 98 full-time faculty and staff participated in the summer training program. Faculty from all 9 major colleges and schools participated and staff members from over 45 different units participated. These individuals then served as project trainers who provided training to other faculty and staff within their respective departments and units throughout the University.

The Cascade Training Model

In Figure 1, we provide the logic model for our cascade training empowerment model (Zimmerman, 2000). According to the model, our participants would participate in training where they would develop awareness, knowledge, skills, and motivation pertaining to University students with disabilities. Our sessions were also designed to promote the belief among the participants that they had opportunities to engage in organizational change activities. These activities then led to goal setting. The process of setting explicit training goals provided a framework for personal action. In addition, goal attainment was a critical indicator of impact and likely organizational change. Goal attainment as a mechanism for motivating action and providing a measurable indicator of achievement has been utilized in previous research (Balcazar, Keys, Lardon, Jones, & Davis, 2005; Hurn, Kneebone, & Cropley, 2006). As interactions grew in number, it was expected that the number of potential “help” points for students with learning disabilities on campus would also grow and each participant’s experiences were expected to stimulate awareness and goal-directed action on the part of others (Thomas & Velthouse, 1990; Zimmerman, 2000).

Figure 1: Faculty and Staff Empowerment Sequence



Training Components

Participants attended a week-long summer institute that was designed to provide them with the awareness, skills, tools, and motivation to educate other members of the University community. The summer institute included a five-day summer workshop for faculty, and a separate four-day summer training institute for staff. The overall curriculum for both trainings was based on available models in the professional literature (Burgstahler & Doe, 2006; Cook et al., 2006; Debrand & Salzberg, 2004; Kurth & Mellard, 2006; Sowers & Smith, 2004) and on our collective understanding of the needs at this particular institution. In Table 1 we provide a broad overview of the training activities.

Table 1

Overview of Summer Institute Training Sessions

Day	Faculty	Staff
Day 1	<i>Characteristics of LD</i> <ul style="list-style-type: none"> • Definition • Prevalence • Learning Characteristics • Social, Emotional, Psychological • Simulations 	<i>Characteristics of LD</i> <ul style="list-style-type: none"> • Definition • Prevalence • Learning Characteristics • Social, Emotional, Psychological • Simulations
Day 2	<i>History, Laws, Accommodations</i> <ul style="list-style-type: none"> • Post-School Outcomes • Federal Legislation • Defining Accommodations • Universal Design • Instructional Strategies 	<i>History, Laws, Accommodations</i> <ul style="list-style-type: none"> • Post-School Outcomes • Federal Legislation • Defining Accommodations • Universal Design • University Support Services
Day 3	<i>Practice</i> <ul style="list-style-type: none"> • Planning for Instruction • Designing Syllabi • Delivering Instruction • Evaluating Instruction & Assessment • University Support Service Presentations 	<i>University Advocacy/Training Others</i> <ul style="list-style-type: none"> • Overview of Survey Results • Overview of Website, Training Materials on BlackBoard, Project Videos • Plan Trainings in Groups
Day 4	<i>University Advocacy & Training Others</i> <ul style="list-style-type: none"> • Overview of Survey Results • Overview of Website, Training Materials on BlackBoard, Project Videos • Plan Trainings in Groups • 	<i>Strategies for Institutionalizing</i> <ul style="list-style-type: none"> • Developing Individual Training Goals • Student Presentation • Workshop Evaluations
Day 5	<i>Strategies for Institutionalizing</i> <ul style="list-style-type: none"> • Developing Individual Training Goals • Student Presentation • Workshop Evaluations 	

Day 1 activities focused on the definition, prevalence, and characteristics of students with LD. The activities in this session provided faculty and staff with a basic understanding of LD and other disabilities along with an awareness of the integration between academic, social, emotional, and psychological impact of LD. During this session, we reinforced information through simulations that were designed to promote sensitivity by providing participants with “glimpses” into the

psychological experience of learning problems (e.g., we read participants a passage that was difficult to comprehend without audio support, we had participants take an exam on tax codes to illustrate the experience of having difficulty comprehending written language, etc).

Day 2 topics focused on history, laws, and accommodations. We began this session with an overview of findings regarding the post-school outcomes of students with LD with a particular emphasis on postsecondary attendance and graduation rates. During this session, we also invited a faculty member from the law school who specialized in disability law to present on federal legislation, case law, and the implications of this legislation and case law to universities. The afternoon of day 2 was devoted to developing faculty staff awareness and understanding of accommodations, universal design, and other instructional strategies such as multi-sensory instruction and peer tutoring.

Day 3 of the *faculty* training was devoted to teaching practices. For this session we asked all faculty participants to bring a copy of a syllabus from one of their courses. Then, using knowledge acquired through the day 1 and 2 activities, faculty worked in pairs to *plan for instruction* by critically evaluating their own syllabi. Following this activity, faculty then worked in small groups to discuss their current teaching practices and developed new strategies for *delivering instruction* based on the knowledge they had acquired in prior sessions. During day 3 we also provided faculty with an overview of various assessment options including rubrics, curriculum-based assessment, and exam accommodations. Using this information, faculty reflected upon their own assessment practices and discussed ways in which they could improve *evaluation of instruction* in their own courses. During the afternoon of day 3, the Director of the Disability Support Services Program at the University presented information regarding services and supports provided through the University's Disability Services Office.

Day 3 activities for staff mirrored the day 4 activities for faculty. These activities were designed to begin to build motivation among participants for training other members of the University community. To facilitate this, the project staff provided participants with an overview of our yearly survey results. This survey was administered to faculty, staff, and administrators in the University and provided an overview of University-wide attitudes and perceptions regarding students with LD. Following an overview of the survey results, we provided faculty and staff with an overview of training materials that were available to them. The training materials used by the project personnel during our training process included handouts, simulations, the PowerPoint presentations, the instructional materials developed by participants throughout the training, and a training video developed by the project were linked to each faculty and staff member's personal Blackboard site so that they would have access to a wealth of training materials. During day 4, we showed these materials to our faculty and staff trainers and we then asked them to work in small groups to develop three different types of trainings that they could use in their respective departments and units (i.e., a 15 minute presentation, a 30 minute presentation, and a 60 minute presentation). These materials were also added to Blackboard sites.

The final day of training for faculty (day 5) and staff (day 4) consisted of developing individual plans of action for what, when, and how they would initiate training with other members of their respective units and departments. In Table 2 we provide a sample of an actual goal sheet developed by one of our staff trainers to illustrate this process. As shown in column 1 of the goal sheet, four types of goals were developed: (a) goals related to personal development, (b) goals pertaining to providing professional development in their respective departments/units (unit interpersonal), (c) goals pertaining to departmental or unit materials (unit materials), and (d) goals related to broader culture change.

Personal goals were characterized by learning or personal effort beyond the DePaul community--*Learning what other Diversity Officers at other schools are doing* (s2); *Read at least one piece of literature on LD* (f16). The second category, unit-interpersonal goals, were defined as presentations, meetings, trainings, and teaching individuals within the participant's organizational home unit in the University (i.e., academic department, staff office)—*Present to faculty meeting—increasing awareness of students with LD* (f10); *Educate our staff on University resources of LD students* (s5).

Category three, material goals, included revisions to syllabi, handbooks, web sites for use in the home unit—*Develop one-page resource sheet for SNL advising and front desk staff* (s3); incorporate new insights in syllabi (f1). The fourth category, culture, focused on making DePaul as a University a more supportive environment for learning. Culture goals addressed LD issues beyond the home unit in the larger University context. *Assist in making text-to-speech software available on DePaul computers for all students* (f19); *Advocate for University-wide academic support center for all students with learning problems or learning skills deficits due to economic/environmental lack of opportunity* (s16).

In addition to developing overall goals, we also asked faculty and staff to list the specific steps or processes involved in implementing their stated goal(s) along with a target date for goal completion. These strategies were listed directly below each goal. After faculty and staff completed the process of developing goals, two University students with LD were invited to speak to the participants about their experiences as students with disabilities at DePaul. The student presenters provided a brief overview of their backgrounds and they discussed both positive and negative aspects of their experiences at the University. This final activity was designed to solidify our faculty and staff trainers' commitment to carrying out their goals.

Table 2

Sample Goals Sheet for Staff Member M.A. (s1)

GOALS	TARGET DATE	ATTAINMENT	IMPACT
Personal Development Goals			
Increase knowledge relative to universal design in housing environment <ul style="list-style-type: none"> Search articles on UD in housing Review articles on UD in housing 	AY 07-08	Done Partially - Read D.O's article <ul style="list-style-type: none"> Complete 	Who? <ul style="list-style-type: none"> Self and 16 staff 5,000 students applying for housing How? <ul style="list-style-type: none"> Greater self-awareness, materials for applicants, better yield
Unit Group/Interpersonal Goals			
Increase knowledge and awareness of needs of students with LD and ADHD in student housing <ul style="list-style-type: none"> Plan training specific to UD for department staff in housing Inform staff about PLuS program Review how LD/ADHD might present issues for our department Disseminate resource list for staff 	Fall 07	In progress Done!	Who? <ul style="list-style-type: none"> 17 staff 5,000 students and 2,500 parents 20 student workers How? <ul style="list-style-type: none"> Greater awareness and sensitivity
Unit Material Goals			
Review housing marketing materials and website so that they are more user friendly for guests with LD/ADHD <ul style="list-style-type: none"> Incorporate statement of 	Fall 07	<ul style="list-style-type: none"> On-going. Complete. Complete. Verbiage regarding a statement of service has been identified 	Who? <ul style="list-style-type: none"> Students, families, guardians How? <ul style="list-style-type: none"> Awareness 18,000 copies of

service in our resident handbook <ul style="list-style-type: none"> • Find ways to add more visual info to website homepage • Establish ways to provide ongoing review 		and will be added to the handbook upon its annual review in June/July. <ul style="list-style-type: none"> • Revisions made to the Housing Services website 8/07. • Additional photos, layouts and floor plans for the buildings have been added. • A process for ongoing review has been created. 	materials
Culture Change Goals			
Review checklist of UD as it relates to our central office space <ul style="list-style-type: none"> • Copy checklist to all staff • Determine appropriate desk and furniture layout • Provide computer access for students to use while in office 	AY 07-08?	Reviewed and adjusted 8/07 <ul style="list-style-type: none"> • Complete. 	Who? <ul style="list-style-type: none"> • 17 housing staff, 20 facilities staff, 10,000 visitors

Supplemental Training Materials: Web site, Print, and Video Materials

To supplement and enrich our cascade training model we also utilized a small amount of project funds to enhance the University's PLuS web site by adding a new section to the site that contained information and resources for faculty and staff (http://studentaffairs.depaul.edu/plus/faculty_staff.html). Included in this section of the web site is information and strategies regarding making referrals, progress reports for students, sample syllabi statements, and resources pertaining to LD, law, accommodations, student stories, links, and video links. These materials were shown to the faculty and staff trainers and they were encouraged to direct other faculty and staff to this site.

A second way we enriched the project materials was through the development of print and video materials. We developed a bi-monthly newsletter (i.e., PLuS Perspectives) that contained topical information about students with LD, strategies for supporting students with LD, and information and resources available to support postsecondary students. Hard copies of these print materials were distributed to all full-time faculty in the University and to staff within our target units. These newsletters are available at: http://studentaffairs.depaul.edu/plus/faculty_staff_perspectives.html.

A final way we provided support to our cascade training effort was through the development and distribution of two 20 minute informational videos—one for faculty and one for staff. These videos were designed for use by our faculty and staff trainers but were also distributed to all full-time faculty within the University. The videos were developed by the project and include information about the characteristics of students with LD, information pertaining to referral procedures and University services, as well as information about the use of teaching and exam accommodations. These videos are available for viewing at http://studentaffairs.depaul.edu/plus/resources_media.html.

Project PLuS Findings

During the process of implementing this project we have conducted several investigations including an initial survey of faculty and staff attitudes (Murray, Flannery, Wren, 2008; Murray, Wren, & Keys, 2008), an analysis of our trainers' implementation of training goals, and analyses of the effects of training on University faculty and staff attitudes and perceptions (Murray, Lombardi, Wren, & Keys, in press-a; Murray, Lombardi, & Wren, in press-b).

Faculty and Staff Surveys

During the first phase of the project, we were interested in developing an understanding about faculty and staff members' current attitudes and perceptions about students with LD at the University. Therefore, prior to implementing any of the project activities we developed and administered one survey to all full-time faculty and another survey to over 300 University staff members. These surveys are publicly available (Murray et al., 2008a, 2008b) and were designed to measure faculty and staff perceptions regarding their knowledge of LD, fairness and sensitivity, willingness to use accommodations, performance expectations, and the need for additional training *prior* to project implementation.

The results of these surveys were published in two separate articles, one pertaining to faculty attitudes and perceptions (Murray et al., 2008a) and one pertaining to staff attitudes (Murray et al., 2008b). In both cases, the results of our analyses indicated that faculty and staff at this particular institution generally had positive perceptions about students with LD including their ability to succeed in a University context, their own self-perceived sensitivity towards students with LD, their willingness to personally invest in supporting students with LD, and their willingness to make various teaching and exam accommodations. However, we also found that both faculty and staff expressed a need for additional training regarding the needs of students with LD and strategies for supporting students with LD in the University context. Together, these findings suggested that although faculty and staff were willing to provide supports, they often perceived themselves to be lacking adequate knowledge and skills to implement such supports.

Implementation of Training Goals

After administering and analyzing our initial survey, the next phase of the project included the training of our faculty and staff trainers through the summer institutes. The primary goal of these workshops was to provide faculty and staff trainers with an awareness of the needs of students with LD but also to provide them with information, materials, and the motivation to train other members of their respective departments and units. To facilitate this process, faculty and staff spent approximately one full day developing specific training goals, training strategies, and forecasting potential problems associated with their training efforts (see Table 2). Following the development of these goals and objectives, we met with the faculty and staff trainers during the fall, winter, and spring quarters of the following year to monitor goal implementation and goal attainment. In cases where our trainers were unable to attend one of these meetings, we conducted follow-up interviews by phone and/or e-mail to receive an update regarding goal implementation from each trainer individually. In columns 3 and 4 of Table 2 we provide an example of this process under "Attainment" and "Impact." Under the Attainment column, each participant's goals were evaluated quarterly to determine whether the trainer had implemented the specific activities. On the original goal sheets, updates in these columns during the fall quarter were color coded in blue ink, updates during the winter were coded in green ink, and updates during the spring quarter were coded in red ink. Using this process, we were able to evaluate ongoing implementation and attainment of each participant's goals. Although not discussed in the current article, the final column of each goal setting sheet contained an estimate of impact. Data gathered in this section provided an estimate of who was impacted by the implementation of each training goal.

In Table 3 we provide an overview of the number and proportion of goals set and the number and proportion of goals attained by our faculty and staff trainers in Years 1 and 2. Overall, 39 of the 50 (78%) Year 1, and 38 of the 48 (79%) Year 2 training participants provided follow-up data regarding goal implementation throughout the entire year following training. It is important to note that it is likely that the non-responders (i.e., approximately 22% of participants) did not implement their training goals.

As shown in Table 3, goals were analyzed according to goal type and included personal, unit-interpersonal, unit-material, and culture goals. As indicated in the table, approximately 52% of the Year 1 goals were unit interpersonal goals. The second most frequent type of goal was unit material (31%). Fewer goals among the Year 1 participants were personal (10%) or cultural (7%). Among the Year 2 participants, the most frequent goal type was unit material (35%) followed by unit interpersonal (33%), personal (19%) and cultural (13%).

The proportion listed under the "Attained" columns provides an overview of the proportion of goals reportedly achieved by goal type. Among the Year 1 participants, unit interpersonal goals were attained with the highest frequency (78% attained), followed by personal (65% attained), unit material (62% attained), and culture (50% attained). Among the Year 2 participants, personal goals were attained with the highest frequency (73% attained), followed by unit material (58%

attained), unit interpersonal (57% attained), and culture (41% attained). Overall, the 77 faculty and staff participants for whom we had complete data across the year directly following training created a total of 478 goals and reported accomplishing approximately 302 (63%) of those goals.

Table 3

Number and Proportion of Goals Developed and Goals Achieved Among Active Participants

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	Year 1		Year 2		Total	
	Set	Attained	Set	Attained	Set	Attained
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Personal	20 (9.7)	13 (65.0)	51 (18.8)	37 (72.5)	71 (14.8)	50 (70.4)
Unit Interpersonal	108 (52.2)	84 (77.7)	90 (33.2)	51 (56.6)	198(41.4)	135 (68.1)
Unit Material	65 (31.4)	40 (61.5)	96 (35.4)	56 (58.3)	161 (33.6)	96 (59.6)
Culture	14 (6.8)	7 (50.0)	34 (12.5)	14 (41.1)	48 (10.0)	21 (43.7)
Totals	207 (100)	144 (69.5)	271 (100)	158 (58.3)	478 (100)	302 (63.1)

Note. Percentages under the “set” columns represent the proportion of goal type created. Proportion under “attained” column represents the proportion of each type of goal achieved. Year 1 data based on 39 of 50 full-year participants, and Year 2 based on 38 of 48 full-year participants.

Training Effects

During the final year of the project, we again conducted surveys of faculty and staff throughout the University. The Year 3 surveys were identical to the surveys that were administered in Year 1 with the exception of several new items that were designed to assess prior training. The reason we incorporated new items related to training was that we were interested in evaluating the effects of prior training on faculty and staff attitudes. Specifically, we asked whether respondents had participated in training, the type of training received, the amount of time spent engaged in training, and the amount of time elapsed since the training experience. Two separate investigations were conducted using these data to examine predictors of faculty (Murray et al., in press-a) and staff (Murray et al., in press-b) attitudes and perceptions.

Several important findings emerged from these analyses. First, among faculty *and* staff, participation in *any* form of disability-focused training was predictive of more positive attitudes and perceptions, knowledge regarding strategies for providing teaching and exam accommodations, general knowledge about disability law, and personal actions such as inviting disclosure. Second, the *type* of prior training received was predictive of attitudes and perceptions such that faculty and staff who had previously attended workshops or courses had the most positive perceptions, followed by faculty and staff who had attended “other forms of training” (e.g., read books or articles). Again, those who had attended no training had the least positive views.

A third important finding to emerge from these analyses was that there were several other important predictors of attitudes, perceptions, and actions. For example, in both cases (faculty and staff), results of multiple regression analyses indicated that participation in multiple forms of training was predictive of more positive attitudes as well as greater knowledge about University students with LD. Further, we found that the “time spent engaged in training” was also an

important predictor of attitudes and perceptions such that faculty and staff who had spent a greater amount of time in training had the most positive attitudes and perceptions regarding University students with LD.

Discussion of Project PLuS

This article provides an overview of an OPE funded project that was implemented at DePaul University. The project was designed to enhance the overall culture of the University through an innovative approach that was established as a broad-based organizational-change model with multiple initiatives to support a mission to create a better environment for students with LD. During the process of implementing this project, we conducted several investigations of faculty and staff attitudes and perceptions, research on the implementation of training activities, and research on training effects.

Consistent with prior research conducted on University faculty attitudes and perceptions (c.f., Bourke, Strehorn & Silver, 2000; Reed, Lund-Lucas, & O'Rourke, 2003) the results of our initial surveys of faculty and staff perceptions indicated that although the faculty and staff respondents at this University had positive perceptions of students with LD, they also expressed a need for additional training regarding disability law, the rights of students with disabilities in University settings, and strategies for supporting students with LD in University contexts. Similar findings have been reported in studies of faculty in public four-year research universities and by faculty in community college settings. One of the unique features of the current project is that we also studied University staff perceptions. Although the staff members who responded to our survey also had positive views about University students with LD, they too indicated a need for additional information and training. These findings are promising because they suggest that not only do faculty and staff recognize the importance of learning about students with disabilities but they also express an interest in learning more about these students and strategies to support them in postsecondary settings.

In an effort to provide such training, we leveraged our project resources in ways that maximized the potential impact of our project. Efforts to promote understanding, knowledge, and skills among a select group of faculty may promote positive experiences for students with disabilities who are fortunate enough to interact with the recipients of such training but finding ways to promote organizational change has the potential to improve the experiences of all students with disabilities throughout an entire institution (McGuire, Scott, & Shaw, 2003; Rohland et al., 2003). Our approach relied on the provision of training to a subset of faculty and staff, a cascade training model, a system of goal setting, and goal monitoring to evaluate implementation. The vast majority of initial training goals developed by our participants were designed to provide direct training to others (unit interpersonal) or were designed to adapt or create unit materials that supported students with disabilities (unit material). Following faculty and staff for a full year following initial training indicated that the vast majority of faculty and staff trainers did indeed implement these training activities with other faculty and staff in their respective departments and units. These findings are important because they suggest that a cascade training approach may be one effective strategy for promoting disability awareness in a postsecondary setting.

Based on our experiences implementing this process, we believe that several factors contributed to the success of the cascade training approach. First, our training was designed to build awareness, sensitivity, and skills among our faculty and staff trainers. Providing trainers with an awareness and understanding of students with LD is important because this knowledge leads to greater commitment to enhancing supports for these students. Thus, we believe that it is essential to provide faculty and staff trainers with a solid foundation of basic facts partly because such information is necessary for beginning to address these issues in a meaningful way, but also because such information can lead to a greater level of commitment to improving the lives and outcomes of students with disabilities.

A second important component of the cascade training model process was the provision of training materials. In an effort to support the implementation of training goals, we provided our trainers with a wide range of training materials including access to a Blackboard site that contained all of the training materials used by the project staff as well as all of the materials developed during the summer institutes, an overview of a web-based resource, electronic access to print materials, and the training videos. In addition, each participant was also provided with a project manual that contained hard copies of all training materials. We believe that providing trainers with a wide selection of easily accessible training materials was important because (a) it provided them with an opportunity to choose materials that they believed will be most effective for

their target audience, and (b) it facilitated the ease of use of these materials. Therefore, we recommend that future projects of this nature find ways of providing a wide array of training materials that are accessible and easy to use.

A third important aspect of this process was that we spent a considerable amount of time working with our faculty and staff trainers developing specific goals, specific training objectives, and actual training activities. Although we spent approximately one full day engaged in such activities, we believe that this level of specificity is critical because it provides a clear framework for action. A second benefit of having clearly specified goals is that such goals can be monitored by project staff to evaluate the extent to which training activities are being implemented.

During the final year of the project, we evaluated the extent to which disability-focused training impacted the attitudes, perceptions, and beliefs of University faculty and staff by including items regarding prior training on our survey of faculty and staff perceptions. The findings from these analyses are promising and suggest that disability-focused training is indeed predictive of University faculty and staff attitudes. Of particular importance was our finding that certain types of training were more strongly associated with positive views. For example, our findings provide strong support for the importance of experiences such as training workshops whereas experiences such as reading books or articles were less positive in terms of their impact on attitudes. Furthermore, experiencing a greater number of training activities, and spending a greater amount of time engaged in training was predictive of positive perceptions (Murray et al., in press-a, in press-b). These findings are instructive because they suggest that faculty development efforts should attempt to provide in-depth experiences but should also provide multiple opportunities to develop knowledge and skills. Strategies such as the one outlined here that incorporate opportunities to develop such skills through direct training experiences, web site materials, print materials, and video materials are potentially valuable in this regard.

Conclusions

A growing number of innovative approaches for promoting access to higher education among students with disabilities are being implemented in colleges and universities. Such efforts should begin with ensuring that colleges and universities are accessible and supportive learning environments. University faculty and staff are the primary conduits through which such accessibility and support will be realized and providing these individuals with the knowledge, attitudes, and skills to create such environments is critically important. Future efforts that build upon and expand efforts such as the one described here will help to ensure that faculty and staff within postsecondary environments are prepared to meet this challenge.

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